



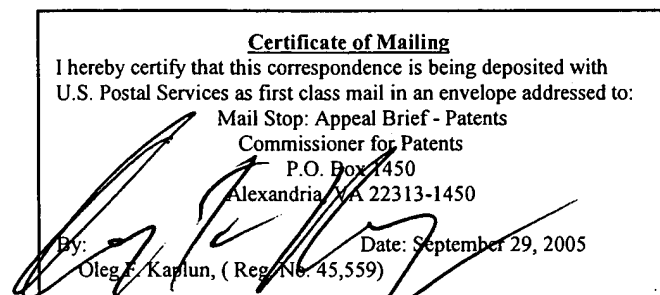
[40116/06201]

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

AP  
2131  
CC  
JPW

Applicants : Fernando et al.  
Serial No. : 09/887,150  
Filed : June 21, 2001  
For : Touch Pad That Confirms It's Security  
Group Art Unit : 2131  
Examiner : Shin Hon Chen

Mail Stop: Appeal Brief-Patent  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450



TRANSMITTAL

In support of the Notice of Appeal dated July 29, 2005 and the Advisory Action dated June 30, 2005, transmitted herewith please find three copies of an Appeal Brief for filing in the above-identified application. Please charge the Credit card of Fay Kaplun & Marcin, LLP in the amount of \$500.00. The Commissioner is hereby authorized to charge the **Deposit Account of Fay Kaplun & Marcin, LLP NO. 50-1492** for additional required fees. A copy of the paper is enclosed for that purpose.

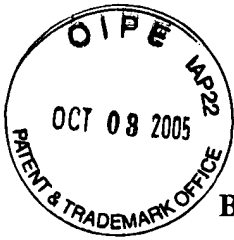
Respectfully submitted,

Dated: September 29, 2005

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PATENT  
Attorney Docket No.: 40116 - 06201

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of:	)	
	)	
<b>Llavanya X. Fernando et al.</b>	)	
	)	
Serial No.: 09/887,150	)	Group Art Unit: 2131
	)	
Filed: June 21, 2001	)	Examiner: Shin Hon Chen
	)	
For: TOUCH PAD THAT CONFIRMS	)	
ITS SECURITY	)	

Mail Stop: Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**APPEAL BRIEF UNDER 37 C.F.R. § 41.37**

In support of the Notice of Appeal filed July 29, 2005, and pursuant to 37 C.F.R.  
§ 41.37, Appellants present in triplicate their appeal brief in the above-captioned application.

This is an appeal to the Board of Patent Appeals and Interferences from the  
Examiner's final rejection of claims 1-6 in the final Office Action dated April 14, 2005. The  
appealed claims are set forth in the attached Claims Appendix.

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1. Real Party in Interest

This application is assigned to Symbol Technologies, Inc., the real party in interest.

2. Related Appeals and Interferences

There are no other appeals or interferences which would directly affect, be directly affected, or have a bearing on the instant appeal.

3. Status of the Claims

Claims 1-6 have been rejected in the final Office Action. The final rejection of claims 1-6 is being appealed.

4. Status of Amendments

All amendments submitted by the Appellants have been entered.

5. Summary of Claimed Subject Matter

The present invention comprises an apparatus and method for secure data entry. More particularly, the present invention relates to confirming to a user the security of data to be entered on a touch pad. (See Specification, ¶ [0007]).

In one aspect of the present invention, a payment device has a circuitry which includes a microprocessor, an encryption circuit, a magnetic-strip-reader (MSR) circuit, a signature-capture circuit, first and second display controllers, a touch-pad controller, a security-

icon display, a touch pad, and a general display. (Id. at ¶ [00018]).

During a typical transaction, the microprocessor initiates the display of a virtual PIN pad on the general display by invoking a Virtual PIN Pad routine (VPPR). The VPPR cues the encryption circuit to initialize security functions. For example, the VPPR cue may include a binary code. If the encryption circuit fails to recognize the code, a security icon is not displayed on the security-icon display. (Id. at ¶¶ [0030]-[0031]). Accordingly, the user recognizes the absence of the security icon and refrains from entering a PIN. (Id. at ¶ [0035]).

6. Grounds of Rejection to be Reviewed on Appeal

- I. Whether claims 1, 2, 4 and 6 are unpatentable under 35 U.S.C. § 102(e) as anticipated by U.S. Patent No. 6,317,835 to Bilger et al. (“the Bilger patent”).
- II. Whether claim 3 is unpatentable under 35 U.S.C. § 103(a) as obvious over the Bilger patent in view of U.S. Patent No. 6,644,547 to White (“the White patent”).
- III. Whether claim 5 is unpatentable under 35 U.S.C. § 103(a) as obvious over the Bilger patent in view of U.S. Patent No. 6,715,078 to Chasko et al. (“the Chasko patent”).

7. Argument

I. The Rejection of Claims 1, 2, 4 and 6 Under 35 U.S.C. § 102(e) as Being Anticipated By U.S. Patent No. 6,317,835 to Bilger et al. Should Be Reversed.

A. The Examiner's Rejection

In the Final Office Action, the Examiner rejected claims 1, 2, 4 and 6 under U.S.C. 102(e) as being unpatentable over the Bilger patent. (See 4/14/05 Office Action, p. 2). The Bilger patent describes a touch screen system for entry of encrypted and non-encrypted information. (See the Bilger patent, Abstract). The system includes a touch sensor/screen, which utilizes a protocol command, "Input Mode Select," to toggle between a PIN entry mode and a clear mode. (Id. at col. 5, lines 1-6). In the clear mode, the touch screen displays a menu to a user, and waits for the user to indicate a choice by touching the touch screen. (Id. at col. 6, lines 10-14). When the user indicates a choice that would require insertion of a PIN (e.g., a purchase), the touch screen automatically enters the PIN entry mode by displaying a PIN pad. (Id. at col. 6, lines 17-37). The PIN entered by the user is encrypted and forwarded to an application program, which forwards the information to a financial institution. The screen then displays the next menu for the user. (Id. at col. 6, lines 59-67).

B. The Cited Patent Does Not Disclose a Display For Displaying Information Confirming the Security Of the Data-Entry Apparatus as Recited in Claim 1.

The Examiner stated in the Final rejection that the Bilger patent discloses each of the elements of claim 1, including "a display for displaying information confirming the security

of the data-entry apparatus.” (See 4/14/05 Office Action, p. 2). The Examiner reaffirmed this position in the Advisory Action of June 30, 2005. (See 6/30/05 Advisory Action). However, Appellants respectfully disagree with the Examiner’s conclusion regarding the confirmation of security.

Initially, it should be noted that the present invention is directed towards providing the user with an indication that communication between the user and the data-entry apparatus is secure, whereas the encrypted mode of the Bilger patent relates to securing communication between the touch screen system and a recipient of the PIN information (e.g., a financial institution).

According to the Bilger patent, a computer waits for user input, and after determining that an encrypted PIN is needed, “the computer informs the T-PED [(PIN Entry Device)] to enter [the] encrypted PIN mode.” (See the Bilger Patent, col. 6, lines 3-36). The computer displays a PIN pad and the T-PED enters the encrypted PIN mode, at which time user input is received. (Id. at col. 6, lines 37-44). At no point in the process does the user receive confirmation that the encrypted and clear modes are selected. The user only sees the screen change from a menu to a PIN pad, which is insufficient to indicate, by itself, that the T-PED has entered the encrypted PIN mode successfully. Thus, the user is unaware that the system has entered the encrypted PIN mode.

Furthermore, the screen change does not necessarily indicate, as the Examiner contends, that the encrypted PIN mode was entered successfully; and thus, is insufficient to

“confirm[] the security of the data-entry apparatus.” (See 6/30/05 Advisory Action). The Bilger patent admits that “[d]ue to the [] ability to operate in encrypted and unencrypted modes, it would be possible for a fraudulent party to introduce a software program on the computer that would ask a user to input a secret PIN number without engaging the encrypting mode.” (See the Bilger patent, col. 7, lines 14-27). To prevent this from occurring, the system may be protected with a cryptographically secure upgrade communication channel, which allows new applications to be loaded onto the computer only from a known authenticated source. (Id. at col. 7, lines 28-41). While this may provide some protection against unauthorized access to the system, it does not constitute a check to ensure that the system has not been compromised. That is, the communication channel represents a passive preventative measure, rather than an active security routine. By utilizing the communication channel, the Bilger patent assumes that communications between the user and the system are secured, and does not bother to check that this is an actuality. Thus, the screen change is not a guarantee that the system is secure.

In contrast to the Bilger patent, the present invention displays the security icon only after the VPPR cue is verified by the encryption circuit, indicating that the data-entry apparatus has been determined to be secure. Thus, the encryption circuit ensures that its ability to receive data securely—and consequently, to send data securely—is intact, and confirms this with the user.

This confirmation is specifically recited in claim 1 as “a display for displaying information confirming the security of the data-entry apparatus.” In contrast, the Bilger patent

neither teaches nor suggests providing such a confirmation to the user.

Therefore, Appellants respectfully request that the Board overturn the Examiner's rejection under 35 U.S.C. § 102(e) of independent claim 1 and all the claims depending directly or indirectly therefrom (claims 2 and 4).

Similar to claim 1, independent claim 6 recites a method for accepting data on a data-entry apparatus, wherein the method includes the steps of "refraining from displaying information asserting a data-entry device's ability to securely receive data" and "displaying information asserting the data-entry device's ability to securely receive data." As discussed above with regard to claim 1, the Bilger patent fails to disclose "displaying information confirming the security of the data-entry apparatus." Therefore, for the same reasons as discussed above with reference to claim 1, Appellants respectfully request that the Board overturn the Examiner's rejection under 35 U.S.C. § 102(e) of independent claim 6.

II. The Rejection of Claim 3 Under 35 U.S.C. § 103(a) as Being Obvious Over U.S. Patent No. 6,317,835 to Bilger et al. in view of U.S. Patent No. 6,644,547 to White Should Be Reversed.

A. The Examiner's Rejection

In the Final Office Action, the Examiner rejected claim 3 under 35 U.S.C. 103(a) as being unpatentable over the Bilger patent in view of the White patent. (See 4/14/05 Office Action, p. 3). The White patent describes a retail terminal/customer workstation that consolidates all relevant customer-facing devices into a single console. (See the White patent,



col. 2, lines 44-48). A customer service workstation (CSW) includes a display, which is broken up into several display areas, including a PIN area for entering a PIN into a video keypad. (Id. at col. 12, lines 17-36; Fig. 2).

B.     The Cited Patents Do Not Disclose a Display For  
Displaying Information Confirming the Security  
Of the Data-Entry Apparatus as Recited in Claim 1.

Appellants respectfully submit that neither the Bilger patent nor the White patent, either alone or in combination, discloses or suggests “a display for displaying information confirming the security of the data-entry apparatus,” as recited in claim 1. The deficiencies of the Bilger patent have been discussed above with reference to claim 1. It is respectfully submitted that the White patent is insufficient to cure the above described deficiencies of the Bilger patent. Specifically, the White patent is silent regarding providing confirmation to a user that the device has entered an encrypted or secure mode. Thus, Appellants respectfully request that the Board overturn the Examiner’s rejection under 35 U.S.C. § 103(a) of claim 3, which depends from and includes the limitations of claim 1.

III.    The Rejection of Claim 5 Under 35 U.S.C. § 103(a) as Being  
Obvious Over U.S. Patent No. 6,317,835 to Bilger et al. in view  
of U.S. Patent No. 6,715,078 to Chasko et al. Should Be Reversed.

A.     The Examiner's Rejection

In the Final Office Action, the Examiner rejected claim 5 under 35 U.S.C. 103(a)

as being unpatentable over the Bilger patent in view of the Chasko patent. (See 4/14/05 Office Action, p. 4). The Chasko patent describes a customer transaction terminal (CTT) which includes a touch screen for entering a PIN. (See the Chasko patent, col. 2, lines 48-52). A protected PIN entry area of the touch screen may display icons representing numbers, letters, and command icons such as an "enter" key. A consumer enters the PIN by touching the appropriate icons. (Id. at col. 2, lines 57-62; Fig. 2).

B.     The Cited Patents Do Not Disclose a Display For  
          Displaying Information Confirming the Security  
          Of the Data-Entry Apparatus as Recited in Claim 1.

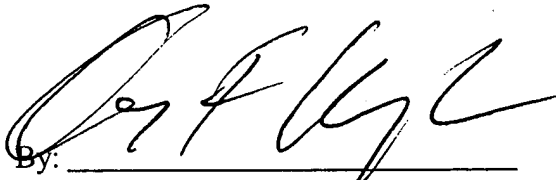
Appellants respectfully submit that neither the Bilger patent nor the Chasko patent, either alone or in combination, discloses or suggests "a display for displaying information confirming the security of the data-entry apparatus," as recited in claim 1. The deficiencies of the Bilger patent have been discussed above with reference to claim 1. The Chasko patent describes the use of interactive icons. However, none of these icons is a security icon. That is, the icons are not used to indicate the security status of the CTT. Therefore, it is respectfully submitted that the Chasko patent is insufficient to cure the deficiencies of the Bilger patent. Thus, Appellants respectfully request that the Board overturn the Examiner's rejection under 35 U.S.C. § 103(a) of claim 5, which depends from and includes the limitations of claim 1.

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8. Conclusions

For the reasons set forth above, Appellants respectfully request that the Board reverse the final rejections of the claims by the Examiner under 35 U.S.C. § 102(e) and 35 U.S.C. § 103(a), and indicate that claims 1-6 are allowable.

Respectfully submitted,



Date: September 29, 2005

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**CLAIMS APPENDIX**

1. A data-entry apparatus comprising:
  - a device for entering data;
  - a display for displaying information confirming the security of the data-entry apparatus; and
  - an encryption circuit, communicatively coupled to the data-entry device and the display.
2. The data-entry apparatus of claim 1, wherein the device for entering data comprises a touch pad.
3. The apparatus of claim 1, further comprising a second display, and wherein the first and second displays are physically separate.
4. The apparatus of claim 1, further comprising a second display, and wherein the first and second displays are under the control of respective first and second controllers that in turn are communicatively coupled to and under the control of the encryption circuit.
5. The apparatus of claim 1, wherein the displayed information comprises an icon.
6. A method for accepting data on a data-entry apparatus, the method comprising:

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refraining from displaying information asserting a data-entry devices's ability to  
securely receive data;  
then preparing to encrypt data received on the data-entry device;  
then displaying information asserting the data-entry device's ability to securely  
receive data.

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**EVIDENCE APPENDIX**

No evidence has been entered or relied upon in the present appeal.

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**RELATED PROCEEDING APPENDIX**

No decisions have been rendered regarding the present appeal or any proceedings related thereto.

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